

# TIER

**T**iered **I**nterventions Using  
**E**vidence-Based **R**esearch

## Handouts

### Decision Making

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### Diagnostic Assessments in Mathematics



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# Assessment Systems and Decision Making

Match the type of assessment system to the decision it can yield.

Decision	Assessment System
What are students' strengths and areas of opportunity?	● Universal Screener
Are students learning the material at the appropriate rate?	● Universal Screener
Which students need additional support?	● Diagnostic Assessment
What level of intensity of instructional support do students need to reach their goals?	● Diagnostic Assessment
What are students' persistent misconceptions and errors?	● Progress Monitoring
Are students making adequate progress toward their goals?	● Progress Monitoring

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# Strands of Mathematical Proficiency

Match each strand to its definition.

Strand	Definition
Conceptual Understanding ●	● Comprehension of mathematical concepts, operations, and relations
Procedural Fluency ●	● Ability to formulate, represent, and solve mathematical problems
Strategic Competence ●	● Habitual inclination to see mathematics as sensible, useful, and worthwhile, coupled with a belief in diligence and one’s own efficiency
Adaptive Reasoning ●	● Skill in carrying out procedures flexibly, accurately, efficiently, and appropriately
Productive Disposition ●	● Capacity for logical thought, reflection, explanation, and justification

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## Sources of Diagnostic Data

Use this table to organize the information about these sources of diagnostic data.

	Diagnostic Interviews	Error Analysis	Learning Progressions
Definition			
General Procedures			
Pros			
Cons			

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## **Diagnostic Interview Video Example**

Think about the following questions and take notes while you watch the video.

**What skills, concepts, and processes does the student know?**

**What skills, concepts, and processes need to be further developed for this student?**

**What misconceptions and/or errors affect this student's knowledge and understanding?**

**What follow-up questions would you want to ask to verify your assumptions?**

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